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MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
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EXAMINER

CAO, PHUONG THAO

ART UNIT	PAPER NUMBER
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2164

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/723,704	Applicant(s) BORTHAKUR ET AL.	
	Examiner Phuong-Thao Cao	Art Unit 2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to After Final Amendment filed on 1/31/2007.
2. There is no amendment to claims. Currently, claims 1-22 and 24-26 are pending.

Response to Arguments

3. Applicant's arguments, see page 4, filed 1/31/2007, with respect to the rejection(s) of claim(s) 1 have been fully considered and are persuasive. Final rejections are withdrawn. New grounds of rejection are applied.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The subject matter "tangible, computer-accessible storage medium" is not defined in the specification.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 15-20 and 26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The computer-accessible storage medium is not limited to tangible media in accordance with Applicant's specification (see page 9), which states that computer-accessible medium may include an electromagnetic signal, not in and of itself a tangible medium.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-2, 8-9, 15-16, 21, 22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pudipeddi et al. (Publication No US 2004/0002942) in view of Howard (US Patent No 6,098,079) and further in view of Patel et al. (Publication No US 2004/0059866).

As to claim 1, Pudipeddi et al. teaches:

“A system” (see Abstract) comprising:

“a storage device configured to provide a storage space for data storage” (see [0026]);

and

“a file system configured to map a plurality of files and a plurality of named streams corresponding respectively to said files to said storage space for storage and to manage access to said storage device” (see [0001], [0019], [0029] and [0038]),

“wherein said named streams are configured to store metadata corresponding respectively to said files” (see [0038] for stream control block (SCB) 324 as example of a named stream associated with a file), and wherein said file system is configured to:

“detect an operation to modify an identity of a first one of said files” (see [0001], [0032], and [0043] wherein ability to view file system request is interpreted as ability to detect file operations including rename operation as an example of operation to modify an identify of a file as in Applicant’s claim language).

Pudipeddi et al. does not teach “in response to detecting said operation, store a record of said operation wherein said record includes a signature corresponding to said first file”.

Howard teaches “in response to detecting said operation, store a record of said operation wherein said record includes a signature corresponding to said first file” (see Abstract, Fig. 5,

[column 3, lines 25-50] and [column 5, lines 1-20] wherein each version entry in the journal files is equivalent to Applicant's "record of said operation", and the hash code or digest computed from the contents of a file is equivalent to Applicant's "signature").

It would be obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. by the teaching of Howard by adding the feature of in response to detecting said operation, store a record of said operation wherein said record including a signature corresponding to said first file, since this feature allows the system the ability to effectively monitor and control the access the file system.

Pudipeddi et al. and Howard do not teach "store a record of said operation within a respective one of said named streams corresponding to said first file."

Patel et al. teach the ability to write on a named data stream (see [0011]).

It would be obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. and Howard by the teaching of Patel et al. to store a record of said operation within a respective one of said named streams corresponding to said first file instead of storing records in a journal file since storing records of operations within a named stream of a file provides an effective way to monitor and review all operations occurring to a file. The system can retrieved access information about a file more efficiently from its named stream than processing the journal file for a creation/modification/deletion history for each file.

As to claim 8, Pudipeddi et al. teaches:

"A method" (see Abstract) comprising:

"storing a plurality of files" (see [0019] for file system); and

“a file system mapping a plurality of files and a plurality of named streams corresponding respectively to said files to a storage space for data storage provided by a storage device, wherein said file system is configured to manage access to said storage device” (see [0001], [0019], [0029] and [0038]),

“and wherein said named streams are configured to store metadata corresponding respectively to said files” (see [0038] for stream control block (SCB) 324 as example of a named stream associated with a file);

“said file system detecting an operation to modify an identity of a first one of said files” (see [0001], [0032], and [0043] wherein ability to view file system request is interpreted as ability to detect file operations including rename operation as an example of operation to modify an identify of a file as in Applicant’s claim language).

Pudipeddi et al. does not teach “in response to detecting said operation, said file system storing a record of said operation wherein said record includes a signature corresponding to said first file”.

Howard teaches “in response to detecting said operation, said file system storing a record of said operation wherein said record includes a signature corresponding to said first file” (see Abstract, Fig. 5, [column 3, lines 25-50] and [column 5, lines 1-20] wherein each version entry in the journal files is equivalent to Applicant’s “record of said operation”, and the hash code or digest computed from the contents of a file is equivalent to Applicant’s “signature”).

It would be obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. by the teaching of Howard by adding the feature of in response to detecting said operation, store a record of said operation wherein said record

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including a signature corresponding to said first file, since this feature allows the system the ability to effectively monitor and control the access the file system.

Pudipeddi et al. and Howard do not teach “storing a record of said operation within a respective one of said named streams corresponding to said first file.”

Patel et al. teach the ability to write on a named data stream (see [0011]).

However, it would be obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. and Howard by the teaching of Patel et al. to store a record of said operation within a respective one of said named streams corresponding to said first file instead of storing records in a journal file since storing records of operations within a named stream of a file provides an effective way to monitor and review all operations occurring to a file. The system can retrieve access information about a file more efficiently from its named stream than processing the journal file for access history of each file.

As to claim 15, Pudipeddi et al. teaches:

“A tangible, computer-accessible storage medium comprising program instructions” (see Abstract and [0026]), wherein the program instructions are computer-executable to implement:

“a file system mapping a plurality of files and a plurality of named streams corresponding respectively to said files to a storage space for data storage provided by a storage device, wherein said file system is configured to manage access to said storage device” (see [0001], [0019], [0029] and [0038]),

“and wherein said named streams are configured to store metadata corresponding respectively to said files” (see [0038] for stream control block (SCB) 324 as example of a named stream associated with a file);

“said file system detecting an operation to modify an identity of a first one of said files” (see [0001], [0032], and [0043] wherein ability to view file system request is interpreted as ability to detect file operations including rename operation as an example of operation to modify an identify of a file as in Applicant’s claim language).

Pudipeddi et al. does not teach “in response to detecting said operation, said file system storing a record of said operation wherein said record includes a signature corresponding to said first file”.

Howard teaches “in response to detecting said operation, said file system storing a record of said operation wherein said record includes a signature corresponding to said first file” (see Abstract, Fig. 5, [column 3, lines 25-50] and [column 5, lines 1-20] wherein each version entry in the journal files is equivalent to Applicant’s “record of said operation”, and the hash code or digest computed from the contents of a file is equivalent to Applicant’s “signature”).

It would be obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. by the teaching of Howard by adding the feature of in response to detecting said operation, store a record of said operation wherein said record including a signature corresponding to said first file, since this feature allows the system the ability to effectively monitor and control the access the file system.

Pudipeddi et al. and Howard do not teach “store a record of said operation within a respective one of said named streams corresponding to said first file.”

Patel et al. teach the ability to write on a named data stream (see [0011]).

However, it would be obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. and Howard by the teaching of Patel et al. to store a record of said operation within a respective one of said named streams corresponding to said first file instead of storing records in the journal file since storing records of operations within a named stream of a file provides an effective way to monitor and review all operations occurring to a file. The system can retrieve access information about a file more efficiently from its named stream than processing the journal file for creation/modification/deletion history for each file.

As to claims 2, 9 and 16, these claims are rejected based on arguments given above for rejected claims 1, 8 and 15 respectively, and are similarly rejected including the following:

Pudipeddi et al. as modified teaches:

“wherein said operation corresponds to a file create operation, a file delete operation, a file rename operation, or a file copy operation” (see [0043] and [0068]).

As to claims 24-26, these claims are rejected based on arguments given above for rejected claims 1, 8 and 15 respectively, and are similarly rejected including the following:

Pudipeddi et al. as modified teaches:

“detect an identify-modifying file operation specifying one or more source ones of said plurality of files and a destination one of said plurality of files” (see [0001], [0032], and [0043] wherein ability to view file system request is interpreted as ability to detect file operations

including rename operation as an example of operation to modify an identify of a file as in Applicant's claim language; also see [0068]).

Pudipeddi et al. and Howard do not teach "in response to detecting said identify-modifying file operation, for existing records of operations previously detected by said file system and responsively stored within said respective named streams corresponding to said one or more source files, store at least some of said existing records within said respective named stream corresponding to said destination file."

Patel et al. teaches "in response to detecting said identify-modifying file operation, for existing records of operations previously detected by said file system and responsively stored within said respective named streams corresponding to said one or more source files, store at least some of said existing records within said respective named stream corresponding to said destination file" (see [0011] wherein read and write operations on a named stream allow copying information from one named stream to another named stream).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. and Howard by the teaching of Patel et al. to add the feature of in response to detecting said identify-modifying file operation, for existing records of operations previously detected by said file system and responsively stored within said respective named streams corresponding to said one or more source files, store at least some of said existing records within said respective named stream corresponding to said destination file, since storing some existing records of a named stream associated with one file in another named stream associated with another file provides a way to track the relationship between files.

As to claim 21, Pudipeddi et al. teaches:

“A system” (see Abstract) comprising:

“a storage device configured to provide a storage space for data storage” (see [0026]);
and

“a file system configured to map a plurality of files and a plurality of named streams corresponding respectively to said files to said storage space for storage and to manage access to said storage device” (see [0001], [0019], [0029] and [0038]),

“wherein said named streams are configured to store metadata corresponding respectively to said files” (see [0038] for stream control block (SCB) 324 as example of a named stream associated with a file), and wherein said file system is configured to:

“detect an identity-modifying file operation specifying one or more source ones of said plurality of files and a destination one of said plurality of files” (see [0001], [0032], and [0043] wherein ability to view file system request is interpreted as ability to detect file operations including rename operation as an example of operation to modify an identify of a file as in Applicant’s claim language; also see [0068]).

Pudipeddi et al. does not teach “in response to detecting said identity-modifying file operation, store a record of said identity-modifying file operation”.

Howard teaches “in response to detecting said identity-modifying file operation, store a record of said identity-modifying file operation” (see Abstract, Fig. 5, [column 3, lines 25-50] and [column 5, lines 1-20] wherein operations such as creation or deletion are examples of identity-modifying file operation, each version entry in the journal files is equivalent to Applicant’s “record of said operation”).

It would be obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. by the teaching of Howard by adding the feature of in response to detecting said operation, store a record of said operation since this feature allows the system the ability to effectively monitor and control the access the file system.

Pudipeddi et al. and Howard do not teach “store a record of said identity-modifying file operation within said respective named streams corresponding to said destination file, and for existing records of operations previously detected by said file system and responsively stored within said respective named streams corresponding to said one or more source files, store at least some of said existing records within said respective named stream corresponding to said destination file.”

Patel et al. teach “store a record of said identity-modifying file operation within said respective named streams corresponding to said destination file, and for existing records of operations previously detected by said file system and responsively stored within said respective named streams corresponding to said one or more source files, store at least some of said existing records within said respective named stream corresponding to said destination file” (see [0011] wherein read and write operations on a named stream allow store a record on a named stream and copying information from one named stream to another named stream).

However, it would be obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. and Howard by the teaching of Patel et al. store a record of said identity-modifying file operation within said respective named streams corresponding to said destination file, and for existing records of operations previously detected by said file system and responsively stored within said respective named streams corresponding

to said one or more source files, store at least some of said existing records within said respective named stream corresponding to said destination file since storing records of operations within a named stream of a file copying records from one named stream of one file to another named stream of another file provides an effective way to monitor all operations occurring to a file as well as track the relationship between files.

As to claim 22, this claim is rejected based on arguments given above for rejected claim 21 and is similarly rejected including the following:

Pudipeddi et al. and Patel et al. do not teach “wherein for each given one of said files, said file system is further configured to generate a respective signature dependent upon at least a portion of content of said given file, to store a record of said respective signature within said respective named stream corresponding to said given file, and to regenerate and store an additional record of said respective signature in response to detecting a change in content of said given file, and wherein for a first and a second one of said plurality of files, said file system is further configured to determine whether said first and second files share a record indicating a common signature.”

Howard teaches a signature associated with a file and generated based on content of the file (see Abstract and [column 3, lines 30-50]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al. and Patel et al. by the teaching of Howard to add the feature of including a signature with a record and identify the relationship between

files based on signature stored in the record since the feature provides the system with effective way to record the file operation and track the identical files in the system.

10. Claims 3-4, 10-11 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pudipeddi et al. (Publication No US 2004/0002942) in view of Howard (US Patent No 6,098,079) and in view of Patel et al. (Publication No US 2004/0059866) as applied to claims 1, 8 and 15 respectively above and further in view of Santry et al. ("Deciding when to forget in the Elephant file system", ACM: 1999).

As to claims 3, 10 and 17, these claims are rejected based on arguments given above for rejected claims 1, 8 and 15 respectively, and are similarly rejected including the following:

Pudipeddi et al., Howard and Patel et al. do not teach "wherein said file system comprises a history stream, and wherein said file system is further configured to stored an indication of said operation in said history stream in response to storing said record in said respective named stream corresponding to said first file"

Santry et al. teach "wherein said file system comprises a history stream; and wherein said file system is further configured to stored an indication of said operation in said history stream in response to storing said record in said respective named stream corresponding to said first file" (see [page 111, column 2, section 2.2] and [page 111, column 1, paragraph 5] for the history which is equivalent to Applicant's "history stream" and there must include an indication of each type of operation in the history to allow undoing the change).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al., Howard and Patel et al. by the teaching of Sandy et al. to add the feature of including a history stream and storing an indication of said operation in said history stream since the feature allows the file system to provide users the ability to undo their operations. As a result, the file system can protect users from their mistakes.

As to claims 4, 11 and 18, these claims are rejected based on arguments given above for rejected claims 3, 10 and 17 respectively, and are similarly rejected including the following:

Pudipeddi et al., Howard and Patel et al. do not teach “wherein said file system is further configured to scan said history stream independently of detecting operations to modify identities of ones of said plurality of files, and in response to detecting said indication of said operation in said history stream, to store said record of said operation in a database configured to store a plurality of entries, wherein said database is further configured to response to a query of said plurality of entries”.

Sandy et al. teaches “wherein said file system is further configured to scan said history stream independently of detecting operations to modify identities of ones of said plurality of files, and in response to detecting said indication of said operation in said history stream, to store said record of said operation in a database configured to store a plurality of entries, wherein said database is further configured to response to a query of said plurality of entries” (see [page 114, column 2, paragraph 1-2] wherein name logs and inode logs are equivalent to Applicant’s “database” and see [page 117, column 1, paragraph 1] for ability to access file history for data store).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al., Howard and Patel et al. by the teaching of Sandy et al. to add the feature of storing records of operations in database since the feature allows the file system to provide users the ability to search, view and use information about the file access activities recorded by the file system.

11. Claims 5-6, 12-13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pudipeddi et al. (Publication No US 2004/0002942) in view of Howard (US Patent No 6,098,079) and in view of Patel et al. (Publication No US 2004/0059866) as applied to claims 1, 8, 15 respectively above, and further in view of Richard et al. (Publication No US 2005/0015461).

As to claims 5, 12 and 19, these claims are rejected based on arguments given above for rejected claims 1, 8 and 15 respectively, and are similarly rejected including the following:

Pudipeddi et al., Howard and Patel et al. do not teach “wherein said record is stored in extensible markup language (XML) format.”

Richard et al. teaches “wherein said record is stored in extensible markup language (XML) format” (see [0094]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al., Howard and Patel et al. by the teaching of Richard et al. to add the feature of storing records in extensive markup language (XML) format since XML is an effective language to store and communicate data between systems.

As to claims 6 and 13, these claims are rejected based on arguments given above for rejected claims 1 and 8 respectively, and are similarly rejected including the following:

Pudipeddi et al., Howard and Patel et al. do not teach “wherein said signature is computed according to the Message Digest 5 (MD5) algorithm.”

Richard et al. teaches “wherein said signature is computed according to the Message Digest 5 (MD5) algorithm” (see [0056]).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al., Howard and Patel et al. by the teaching of Richard et al. to add the feature of computing signature using the Message Digest 5 (MD5) algorithm since Message Digest 5 (MD5) algorithm is a well-known method used in the art to compute the signature of the file.

12. Claims 7, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pudipeddi et al. (Publication No US 2004/0002942) in view of Howard (US Patent No 6,098,079) and in view of Patel et al. (Publication No US 2004/0059866) as applied to claim 1, 8 and 15 respectively above, and further in view of Reynolds et al. (US Patent No 6, 286, 013).

As to claims 7, 14 and 20, these claims are rejected based on arguments given above for rejected claims 1, 8 and 15 respectively, and are similarly rejected including the following:

Pudipeddi et al., Howard and Patel et al. do not teach “wherein subsequent to storing said record, said file system is further configured to associate said record with a second one of said

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files in response to detecting a second operation to modify the identity of said first file, wherein said second operation corresponds to a file copy operation specifying said first file as a copy source and said second file as a copy destination.”

Reynolds et al. teaches “wherein subsequent to storing said record, said file system is further configured to associate said record with a second one of said files in response to detecting a second operation to modify the identity of said first file, wherein said second operation corresponds to a file copy operation specifying said first file as a copy source and said second file as a copy destination” (see [column 12, lines 30-43] wherein packet of information is equivalent to Applicant’s “said record”).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Pudipeddi et al., Howard and Patel et al. by the teaching of Reynolds et al. to add the feature of subsequent to storing said record, said file system is further configured to associate said record with a second one of said files in response to detecting a second operation to modify the identity of said first file, wherein said second operation corresponds to a file copy operation specifying said first file as a copy source and said second file as a copy destination, since associating said record with a second file as disclosed provides an effective way to identify the relationship between the two files.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong-Thao Cao whose telephone number is (571) 272-2735. The examiner can normally be reached on 8:30 AM - 5:00 PM (Mon - Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PTC

February 15, 2007


CHARLES RONES
SUPERVISORY PATENT EXAMINER